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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/031,421	01/18/2002	Tomasz Rudas	283702-13	6591

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IP DEPARTMENT
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EXAMINER

BEISNER, WILLIAM H

ART UNIT	PAPER NUMBER
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1744

DATE MAILED: 12/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/031,421

Applicant(s)

RUDAS, TOMASZ

Examiner

William H. Beisner

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 63-74 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 63-74 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 63-68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cotton (US 4,565,552) in view of McCann (US 5,447,850), Sherman (US 2,337,686) and Rosner (US 3,895,916).

The reference of Cotton discloses an organic waste material treatment process for organic waste material received in a vessel (1) that includes: subjecting the contents of the vessel (1) to conditions under which aerobic composting of the contents of the vessel with proceed in order to raise the temperature of the contents of the vessel to at least 50 deg. C to promote anaerobic digestion of the contents (See column 2, lines 32-40); the air is stopped (See column 2, lines 41-43); anaerobic bacterial inoculum is added to the contents of the vessel (See column 2, lines 43-

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67); the contents of the vessel are then anaerobically digested (See column 3, lines 1-15); gaseous byproducts resulting from anaerobic digestion are removed from the vessel (See column 3, lines 5-10); water is removed from the vessel (See column 3, lines 56-59).

While the reference of Cotton discloses stopping the air flow to the vessel prior to inoculating the vessel with anaerobic microorganisms (See column 2, lines 41-45), claim 1 differs by specifically reciting that oxygen is depleted in the vessel to create conditions suitable for anaerobic digestion of the contents.

The reference of McCann discloses that the use of a step of depleting the oxygen within a waste material holding vessel (22) is known in the art to reduce the risk of explosion (See column 3, lines 33-37; and column 4, lines 57-63) when converting from an aerobic degradation to an anaerobic degradation. The reference discloses sealing the vessel with respect to air and allowing the oxygen to be consumed and optionally the use of a purge gas.

In view of this teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to deplete the vessel of the primary reference of oxygen as suggested by the reference of McCann for the known and expected result of reducing the risk of an explosion. Note the oxygen depletion step suggested by the reference of McCann includes sealing the vessel with respect to air and causing the aerobic bacteria to consume the remaining oxygen (See column 4, lines 53-63).

Claim 63 further differs by reciting that the process includes an additional aeration step prior to removing the waste material from the vessel.

The reference of Sherman discloses that it is known in the art to provide a final aeration treatment of the organic material before removal of the material after being subjected to aerobic prefermentation and an anaerobic fermentation (See column 2, lines 12-41).

In view of this teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a final aeration step as suggested by the reference of Sherman for the known and expected result of “lethalisation of all putrefactive bacteria” and dehydration of the final product (See page 3, column 1, lines 1-12).

Claim 63 further differs by reciting that the waste material is aerated in the vessel under pressure above atmospheric pressure.

The reference of Rosner discloses that it is known in the art to aerate organ waste material within a reaction vessel that is operated in a pressure above atmospheric pressure so as to enhance the composting process (See column 1, lines 58-63; column 2, lines 35-39; and column 3, line 65, to column 4, line 4).

In view of this teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to aerate the waste material of the modified primary reference using an overpressure condition as suggested by the reference of Rosner for the known and expected result of providing an art recognized means for enhancing the composting process. In the absence of a showing of criticality and/or unexpected results, it would have been obvious to one of ordinary skill in the art at the time the invention was made to determine the optimum overpressure conditions while maintaining the efficiency of the composting system.

While the reference of Cotton discloses inoculation with anaerobic bacterial inoculum in the form of added liquid manure and/or water (See column 2, lines 41-50), the reference does not

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recite the specific moisture content of the wetted material. However, in the absence of a showing of criticality and/or unexpected results, it would have been obvious to one of ordinary skill in the art to determine the optimum moisture content for performing the anaerobic fermentation step. One skill in the art knows that anaerobic fermentation requires a moist environment.

4. Claims 69-74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cotton (US 4,565,552) in view of McCann (US 5,447,850), Sherman (US 2,337,686) and Rosner (US 3,895,916) taken further in view of Deneche et al. (DE 4409487).

The combination of the references of Cotton, McCann, Sherman and Rosner has been discussed above.

Claim 69 differs by reciting that the process is performed using a plurality of interconnected vessels and the water from one vessel is used to inoculate one of the other vessels.

The reference of Deneche et al. discloses that it is known in the art to perform aerobic/anaerobic treatments on organic waste using a plurality of interconnected vessels wherein the liquid from one vessel is used to inoculate one of the other vessels (See the English language abstract).

In view of this teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ a plurality of interconnected vessel to perform the method of the modified primary reference for the known and expected result of increasing the volume of organic waste material that can be processed by the system.

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With respect to the over pressures of claims In the absence of a showing of criticality and/or unexpected results, it would have been obvious to one of ordinary skill in the art at the time the invention was made to determine the optimum overpressure conditions while maintaining the efficiency of the composting system.

Response to Arguments

5. With respect to the rejection of claims 1, 6, 13 and 22 under 35 USC 103 over the combination of the references of Cotton, McCann and Sherman, Applicants argue (See pages 6-7 of the response filed 10/7/05) that the rejection is improper for the following reasons: The vessel of Cotton does not provide anticipation for an air-tight pressurized vessel. The vessel of Cotton is intended to be water tight and it cannot be inferred that the vessel of Cotton is pressurized or is capable of operating and maintaining an internal air pressure above atmospheric pressure. The method of McCann requires purging the vessel with natural gas while the instant invention seals the vessel and the oxygen content thereof is depleted thereof by the action of aerobic bacteria. The process described in the reference of Sherman is fundamentally different from the process of the present invention.

Applicant's comments are not found to be persuasive for the following reasons:

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

The reference of Cotton was not relied upon to teach a pressurized vessel. The reference of Rosner was relied upon to address this claim feature. Note previous claim 1 did not require a pressurized vessel and/or step.

While the reference of McCann discloses purging the vessel with natural gas, the reference additionally discloses sealing the vessel after an aerobic fermentation step wherein all of the oxygen is consumed so that the system is placed in an anaerobic state (See column 4, lines 44-65). Furthermore the instant claims do not preclude the use of a step that includes purging with natural gas.

The reference of Sherman was merely relied upon to show that it is known in the art to treat a fermented material with a final aeration step to kill putrefactive bacteria and dry the final product after being exposed to anaerobic fermentation conditions.

Finally, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

6. With respect to the rejection of claims 7-9 and 17-19 under 35 USC 103 over the combination of the references of Cotton, McCann, Sherman and Rosner, Applicant argues (See pages 7-8 of the response filed 10/7/05) that the rejection is improper because the vessel of Rosner would not be capable of being subjected to pressurization and depressurization required of the instant claims.

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In response, the reference of Rosner was relied upon to merely teach that it is known in the art to perform fermentation at elevated pressure. One of ordinary skill in the art would have recognized that a rigid vessel can be used while providing the overpressure taught by the reference of Rosner. This is further supported by the disclosure of Rosner that states rigid vessels for providing overpressure require unacceptably high expenses. In view of this disclosure, one of ordinary skill in the art would recognize that rigid vessels can also be used to provide pressurized air to a mass of organic material to be composted.

7. With respect to the rejection of claims 23, 28, 35 and 44 under 35 USC 103 over the combination of the references of Cotton, McCann, Sherman and Deneche, Applicant argues (See page 8 of the response filed 10/7/05) that the reference of Deneche does not cure the deficiencies of the combination of Cotton, McCann and Sherman.

In response, the Examiner is of the position that the combination of the references of Cotton, McCann and Sherman is proper and meets the limitations of claim 1.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after


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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Beisner whose telephone number is 571-272-1269. The examiner can normally be reached on Tues. to Fri. and alt. Mon. from 6:15am to 3:45pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


William H. Beisner
Primary Examiner
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WHB